

LEPIDIUM SOLOMONII (CRUCIFERAE), A NEW SPECIES FROM BOLIVIA

Lepidium solomonii Al-Shehbaz, which is named after its collector (James C. Solomon), is a species strikingly different in habit and other characters from any of the 42 native South American lepidiums treated by Thellung (1906), Hitchcock (1945), and Boelcke (1964, 1984). It is a dwarf, matted, caespitose plant with a thick caudex, the branches of which are covered with the persistent petioles from previous years, and each branch is a scape with tiny, simple, entire or 1–4-toothed, rosulate, glabrous leaves. The presence of four stamens and appendiculate petal claws are rare features in *Lepidium* L., which characteristically has two or six stamens and unappendaged claws.

Two other South American species, *Lepidium philippianum* (O. Kuntze) Thell. and *L. quitense* Turcz., have four stamens and sometimes simple leaves, but these are very different from *L. solomonii* in habit and in having elliptic fruits and pubescent or puberulent leafy stems. The new species superficially resembles three North American species, *L. nanum* S. Watson, *L. davisii* Rollins, and *L. barnebyanum* Rev., in habit and in possession of simple leaves and exserted styles (Hitchcock, 1936; Rollins, 1948; Reveal, 1967). It is, however, clearly unrelated to any of these. They differ from *L. solomonii* in having six stamens, ovate to elliptic fruits, unappendaged claws, and leafy stems.

Lepidium solomonii Al-Shehbaz, sp. nov. TYPE: Bolivia. Depto. La Paz: Prov. Los Andes, 6.6 km NW of Batallas on the principal road along Lake Titicaca; 16°15'S, 68°33'W; elev. 3,850 m; rocky hillside with *Stipa*, *Tetraglochin*, *Caiophora*, and *Baccharis*, 5 Feb. 1984, J. C. Solomon 11448 (holotype, MO!; isotypes, GH!, LPB). Figure 1.

Herba perennis caespitosa, pulvinata, multicaulis; caudex ramosus, ramis crassis scaposis; folia rosulata, petiolata, lineari vel anguste oblanceolata, 6–17 mm longa, 0.4–0.8 mm lata; petioli persistentes, basi valde complanati, 3.5–6 mm longi; racemi subcorymbosi, sparsiflori, ebracteati; sepala non saccata, 1.5–1.8 mm longa; petala alba, unguiculata, spathulata vel ovata, 2.2–3 mm longa, unguiculis appendiculatis; stamina 4, filamentis basi dilatatis; siliqua orbiculata, retusa, 3.2–3.8 mm longa; stylus breviter exsertus, 0.4–0.5 mm

longus; semina exalata, compressa; cotyledones incumbentes.

Caespitose perennial herbs, forming cushions. Caudex thick, branched, densely covered with papery petiole bases from previous years; ultimate branches rosulate, scapose, 1–2 cm long. Leaves petiolate, glabrous, somewhat fleshy; blade linear to narrowly lanceolate or oblanceolate, 6–17 mm long, 0.4–0.8 mm wide, entire or 1–4-toothed, acute or subacute, attenuate at base; midnerve prominent in the proximal half, obscure in the distal one; petioles persistent, strongly flattened, 3.5–6 mm long, 1.5–1.8 mm wide at base. Inflorescence an ebracteate, few-flowered, subcorymbose raceme, 1–1.5 cm long; rachis glabrous; fruiting pedicels 3–5.5 mm long, ascending, straight, winged. Sepals ascending, glabrous, ovate to broadly oblong, 1.5–1.8 mm long, 1.2–1.4 mm wide, broadly white margined, not saccate, equal at the base. Petals white, clawed, spatulate to broadly ovate, 2.2–3 mm long, 1–1.2 mm wide; claws 1–1.2 mm long, with a small adaxial appendage just below the blade. Nectar glands 4, ca. 0.4 mm long, toothlike, opposite petals. Stamens 4, erect, white; filaments dilated at the base, 1.6–2 mm long, the lateral pair as long as or only slightly shorter than median pair; anthers ovate, ca. 0.6 mm long. Fruits glabrous, orbicular, 3.2–3.8 mm long, keeled, retuse and obscurely winged at the apex; sinus 0.1–0.2 mm deep; styles persistent, exserted, 0.4–0.5 mm long. Seeds ovate, minutely reticulate, wingless, compressed, ca. 1.7 × 1.2 mm, only slightly mucilaginous when wet; cotyledons incumbent.

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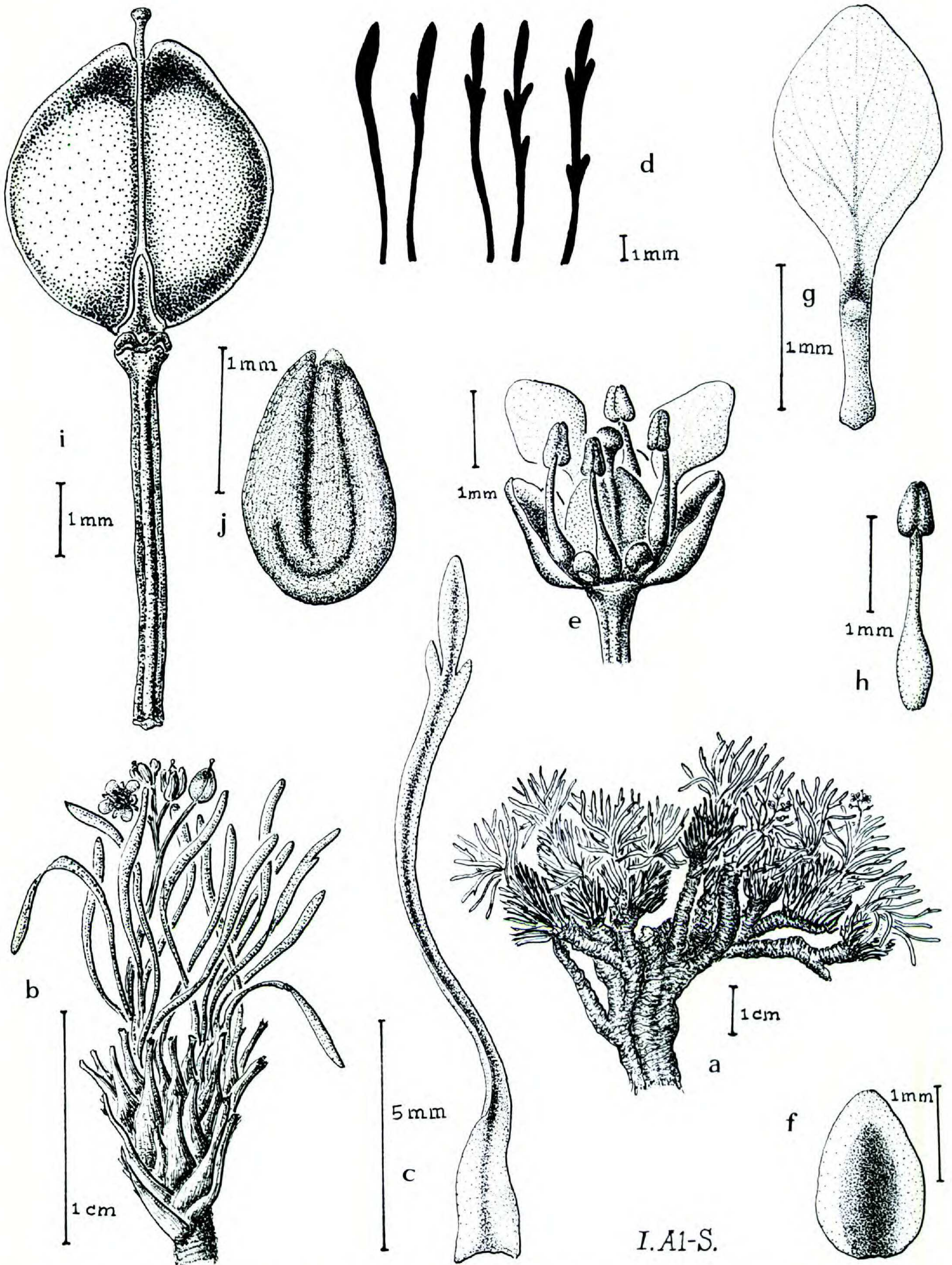


FIGURE 1. *Lepidium solomonii* (from *Solomon 11448*, holotype).—a. Plant.—b. Flowering branch of caudex.—c. Leaf.—d. Variation in leaves.—e. Flower (one sepal and two petals removed).—f. Sepal.—g. Petal.—h. Stamen.—i. Fruit and fruiting pedicel.—j. Seed. (Illustrations by the author.)

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